



*Image*

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q64574

Hirobumi AOKI, et al.

Appln. No.: 09/869,142

Group Art Unit: 1652

Confirmation No.: 1209

Examiner: Christian L. FRONDA

Filed: June 26, 2001

For: NOVEL RHODOCOCCUS BACTERIUM, NITRILASE GENE, NITRYL HYDRATASE GENE AND AMIDASE GENE FROM RHODOCOCCUS BACTERIUM, AND PROCESS FOR PRODUCING CARBOXYLIC ACIDS USING THEM

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. §§ 1.97 and 1.98**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents is submitted herewith along with a copy of the foreign Office Communication dated February 5, 2004.

The present Information Disclosure Statement is being filed after the later of three months from the application's filing date and the mailing date of the first Office Action on the merits, but before a Final Office Action, Notice of Allowance, or an action that otherwise closes prosecution in the application (whichever is earlier), and therefore Applicant is filing concurrently herewith a Statement Under 37 C.F.R. § 1.97(e). No fee under 37 C.F.R. § 1.17(p) is required.

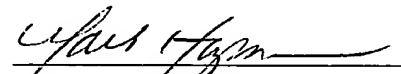
The present Information Disclosure Statement is being filed thirty days or fewer from the communication from a foreign patent office and a Statement Under 37 C.F.R. §1.704(d) is attached.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant encloses herewith a copy of a Communication from a foreign patent office in a counterpart application citing such documents, together with an English-language version (if not already included) of at least that portion of the Communication indicating the degree of relevance found by the foreign patent office.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account. A duplicate copy of this paper is attached.

Respectfully submitted,

  
Mark L. Hayman  
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WASHINGTON OFFICE  
**23373**  
CUSTOMER NUMBER

Date: February 27, 2004



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**STATEMENT UNDER 37 C.F.R. § 1.97(e)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The undersigned hereby states, upon information and belief:

That each item of information contained in the Information Disclosure Statement filed concurrently herewith was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of said Information Disclosure Statement.

Respectfully submitted,

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Mark L. Hayman  
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Date: February 27, 2004

Substitute for Form 1449 A &amp; B/PTO

Complete if Known

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

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of

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Application Number	09/869,142
Confirmation Number	1209
Filing Date	June 26, 2001
First Named Inventor	Hirobumi AOKI
Art Unit	1652
Examiner Name	Christian L. FRONDA
Attorney Docket Number	Q64574

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code <sup>2</sup> (if known)		
		US 5,811,286	A	09-22-1998	Fallon et al.
		US 5,827,669	A	10-27-1998	Yanenko et al.

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
		EP	0 502 476	A2	09-09-1992	NITTO CHEMICAL INDUSTRY CO., LTD.	N/A
		EP	0 445 646	A2	09-11-1991	NITTO CHEMICAL INDUSTRY CO., LTD.	N/A
		JP	2001-292772	A	10-23-2001	SHOWA DENKO K.K.	Abstract
		JP	2001-136977	A	05-22-1991	SHOWA DENKO K. K.	Abstract
		WO	01/64857	A1	09-07-2001	BASF Aktiengesellschaft	Abstract
		EP	0 909 821	A2		BASF Aktiengesellschaft	Abstract
		WO	97/06248	A1	02-20-1997	ALLIED COLLOIDS LIMITED	N/A

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation <sup>6</sup>
		Kobayashi, et al., "The Catalytic Mechanism of Amidase Also Involves Nitrile Hydrolysis", <i>FEBS Letters</i> (1998), vol. 439, pp. 325-328.	N/A
		Veiko, et al., "Cloning and Determination of the Nucleotide Sequence of the Nitrile Hydratase Gene", <i>Russian Biotechnology</i> (1995), no. 5, pp. 1-4.	N/A
		Database Accession No. X86737, retrieved from EBI online.	N/A
		Kobayashi, et al., "Cloning, Nucleotide Sequence and Expression in <i>Escherichia coli</i> of Two Cobalt-containing Nitrile Hydratase Genes from <i>Rhodococcus rhodochrous</i> J1", <i>Biochimica et Biophysica Acta</i> (1991), vol. 1129, no. 1, pp. 23-33.	N/A
		Database Accession No. P21219, retrieved from EBI online.	N/A
		Database Accession No. P21220, retrieved from EBI online.	N/A
		Nagasawa, et al., "Characterization of a New Cobalt-containing Nitrile Hydratase Purified from Urea-induced Cells of <i>Rhodococcus rhodochrous</i> J1", <i>Eur. J. Biochem</i> (1991), vol. 196, no. 3, pp. 581-589.	N/A
		Komeda, et al., "Characterization of the Gene Cluster of High-Molecular-Mass Nitrile Hydratase (H-NHase) Induced by its Reaction Product in <i>Rhodococcus rhodochrous</i> J1", <i>Proc. Natl. Acad. Sci.</i> (1996), vol. 93, no. 9, pp. 4267-4272.	N/A
		Database Accession No. D67027, retrieved from EBI online.	N/A
		Stevenson, et al., "Mechanistic and Structural Studies on <i>Rhodococcus</i> ATCC 39484 Nitrilase", <i>Biotechnology and Applied Biochemistry</i> (1992), vol. 15, no. 3, pp. 283-302.	N/A
		Kato, et al., "Nitrile Hydratase Involved in Aldoxime Metabolism from <i>Rhodococcus</i> sp. Strain YH3-3: Purification and Classification", <i>Eur. J. Biochem.</i> (1999), vol. 263, pp. 662-670.	N/A
		Silman, et al., "Directed Evolution of Amidase in <i>Methylophilus methylotrophus</i> ; Purification and Properties of Amidases from Wild-type and Mutant Strains", <i>Journal of General Microbiology</i> (1991), vol. 137, pp. 169-178.	N/A
		Kobayashi, et al., "Nitrilase Catalyzes Amide Hydrolysis as Well as Nitrile Hydrolysis", <i>Biochemical and Biophysical Research Communications</i> (1998), vol. 253, pp. 662-666.	N/A
		A. W. Bunch, "Biotransformation of Nitriles by <i>Rhodococci</i> ", <i>Antonie van Leeuwenhoek</i> (1998), vol. 74, pp. 89-97.	N/A

Examiner Signature

Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov), MPEP 901.04 or in the comment box of this document. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to indicate here if English language Translation is attached.